

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1, 4, 6, 8-17, 21, 26, and 27 are pending in the present application. Claims 1, 4, 6, 17, and 12 are independent claims. Claims 26 and 27 are new claims.

Rejections Under 35 U.S.C. § 112

Claim 13 stands rejected because of an antecedent basis issue. The Examiner notes that “transmission power value” does not appear in claim 1 and therefore “the transmission power value” is inappropriate in dependent claim 13. Applicants agree with the examiner and have amended claim 13 to correct this issue and make it more consistent with claim 1.

At least in view of the above, Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejections Under 35 U.S.C. § 103

Claims 1,4,6,8-10,14-17, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2006/0126493 by Hashem et al. (hereafter “Hashem”) in view of U.S. Patent No. 5,940,006 to MacLellan et a. (hereafter “MacLellan”). Insofar as they pertain to the currently pending claims, these rejections are respectfully traversed.

With respect to independent claims 1 and 17, Hashem discloses “a method of selecting and signalling (sic) the identity of acceptable groups of sub-carriers in a radio communication system.” (Para 0007). Hashem’s disclosure is concerned with remote units and base stations, specifically with a remote unit determining channel quality of a group of sub-carrier signals, identifying the acceptable groups of sub-carriers, and transmitting a list of identified sub-carriers so that a base station can determine an appropriate Link Mode (Para 0007). Hashem further defines a Link Mode as “a set of at least one transmission parameter, such as a modulation level,

a coding rate, a symbol rate, a transmission power level, antenna directional parameters, or space-time coding parameters.” (Para 0019).

Hashem does not disclose anything related to ascertaining where the remote unit is located in relation to the base station or in using the location of the remote unit with respect to the base station to determine a modulation level or coding rate. Hashem is concerned only with reception conditions between the terminal and the base and does not teach or suggest “using a modulation level or a coding rate ... in accordance with the position of said first radio station with respect to said second radio station” as required by claims 1 and 17.

With respect to independent claims 1 and 7, MacLellan discloses a communication system where an interrogator identifies and sends instructions to remote tags in the system. (Col. 2, lines 1-18). MacLellan’s disclosure pertains to a Radio Frequency Identification (RFID) system that “utilized Modulated Backscatter technology that operates with an Enhanced Uplink.” (Col. 3, lines 44-50). MacLellan does not disclose ascertaining the location of a Tag with respect to an Interrogator or using the relative positions of the Tag and Interrogator to set transmission parameters, thereby failing to teach or suggest “using a modulation level or a coding rate ... in accordance with the position of said first radio station with respect to said second radio station” as required by claims 1 and 17.

The purpose of knowing the relative positions the radio stations with respect to each other is to enable a reduction of interference while providing good radio communication. By allotting the modulation level or coding rate in accordance with the reception conditions and the relative position of the two stations, the reception power / interference ratio can be increased. This is especially important for radio communication where one of the stations is at the edge of the other’s transmission radius. In an environment where there are multiple such situations so that the transmission radii of several stations abut or overlap, a station attempting to communicate from this edge area will be subject to greater interference as transmission power increases. A modulation rate allowing a lower signal to noise ratio is desirable for such a situation so that drastic increases in transmission power are not necessary to transmit a signal.

Conversely, for shorter transmission ranges with less interference from overlapping transmission areas, a modulation rate geared for a high signal to noise ratio at moderate power is more desirable.

Independent claims 4, 6, and 21 also contain the requirement of knowing the relative positions of the first and second radio stations. Claims 4, 6, and 21 claim terminal and a base station and specify "using a modulation level or a coding rate allotted in accordance with ... the position of said terminal station with respect to said base station so as to perform communication."

The Examiner notes that claims 4 and 6 are rejected for the same reason as set forth in claim 1 (page 4 of Office Action) and that claim 21 is rejected for the same reason as set forth in claims 4 and 6 (page 5 of Office Action). Applicants therefore respectfully submit that the deficiencies in the art applied in claims 1 and 17 are equally relevant when that art is applied to claims 4, 6, and 21.

At least in view of the above, Applicants respectfully submit that MacLellan does not remedy the defects in the teachings of Hashem and that therefore MacLellan and Hashem do not establish, either alone or in combination (assuming the references may be combined, which Applicants do not admit) a prima facie obviousness of independent claims 1, 4, 6, 17, and 21 as well as claims depending therefrom. Applicants further submit that claims 8-10, 13-16, 26, and 27 are allowable at least by virtue of their dependency on Claims 1 and 4. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection insofar as it pertains to the currently pending claims.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hashem in view of MacLellan in further view of U.S. Patent Application Publication No. 2002/0159422 by Li et al. (hereafter "Li").

Applicants respectfully submit that Li fails to remedy the deficiencies set forth above in connection with independent claim 1. Specifically, Li is being relied upon by the Examiner to teach transmission power adjustment by having one station detect the transmission power of the other station and adjust its own power accordingly. Li does not disclose power control based on a determination of the relative positions of the two stations and as such fails to teach or suggest "using a modulation level or a coding rate ... in accordance with the position of said first radio station with respect to said second radio station," as required in claim 1.

Applicants therefore submit that claim 13 is allowable by virtue of its dependency on claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Conclusion

In view of the above amendment, Applicants believes the pending application is in condition for allowance. Thus, the Examiner is respectfully requested to reconsider the outstanding rejections and issue a Notice of Allowance in the present application.

However, should the Examiner believe that any outstanding matters remain in the present application, the Examiner is requested to contact Applicant's representative, Michael Cammarata (Reg. No. 39,491) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution .

In view of the above amendment, applicant believes the pending application is in condition for allowance.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

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